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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/778,310 | 02/07/2001 | Stephen Memory | 655.00875 | 5647 |

7590 07/08/2002

WOOD, PHILLIPS, VAN SANTEN, CLARK & MORTIMER
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CHICAGO, IL 60661

[REDACTED] EXAMINER

PATEL, NIHIL B

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 3743 | |

DATE MAILED: 07/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/778,310 | MEMORY ET AL. |
| | Examiner | Art Unit |
| | Nihir Patel | 3743 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____ .
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 1-12, 15, 18 and 21-30 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 13, 14, 16, 17, 19 and 20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____ .
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____ .
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . 6) Other: _____ .

Election/Restrictions

1. Claims 15,18, and 21-30 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 6.

DETAILED ACTION

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 13,22,23,25, and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Referring to claim 13, there is insufficient antecedent basis for limitations “the corresponding fin”.

Referring to claims 22,23, and 25, there is insufficient antecedent basis for limitations “the slots”.

Referring to claim 28, there is insufficient antecedent basis for limitations “the bight”.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,14, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Young et al. U.S. Patent No. 5,501,270. Referring to claim 1, Young discloses a plate fin heat exchanger that comprises first and second headers (12 and 14); at least one flattened tube (20) extending between and in fluid communication with the headers (12 and 14) and defining a plurality of generally parallel tube runs in spaced relation to one another; each tube run having opposite edges defining a tube major dimension and interconnecting side walls defining a tube minor dimension and a plurality of interior ports; a plurality of plate fins (22) arranged in a stack and each having a plurality of open ended tube run receiving slots one for each tube run, each slot having a shape of generally that of the cross-section of the tube run to be received therein, a width equal to or just less than the minor dimension of the corresponding tube run and a depth somewhat less than the major dimension of the corresponding tube run; each tube run being nested within corresponding slots in the fins with one of the edges of each tube run located outwardly of the corresponding fin; and the headers (12 and 14), the tube runs (20); and the fins (22) comprise a brazed assembly. Refer to figures 1 and 4 and column 3.

Referring to claim 14, Young clearly shows that the tube runs (20) are defined by individual tube (20). Refer to figures 2 and column 3.

Referring to claim 17, Young clearly shows that the slots have flange free edges brazed to the tube runs (20). Refer to figure 2 and 4.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. U.S. Patent No. 5,501,270 in view of Slaasted U.S. Patent No. 3,771,595.

Young discloses the applicant's invention as claimed with the exception of providing slots that are at least partially bounded by flanges brazed to the tube runs.

Slaasted discloses a heat exchanger device that does provide slots that are at least partially bounded by flanges brazed to the tube runs. Therefore it would be obvious to modify Young's invention by providing slots that are at least partially bounded by flanges brazed to the tube runs in order to provide a tightly sealed connection.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. U.S. Patent No. 5,501,270 in view of Larinoff U.S. Patent No. 5,467,816.

Young discloses the applicant's invention as claimed with the exception of providing the plate fins that are elongated and with slots open to one elongated edge thereof, the other elongated edge being uninterrupted by the slots.

Larinoff discloses finned tubes for air-cooled steam condensers that does provide plate fins that are elongated and with slots open to one elongated edge thereof, the other elongated

edge being uninterrupted by the slots. Therefore it would be obvious to modify Young's invention by providing plate fins that are elongated and with slots open to one elongated edge thereof, the other elongated edge being uninterrupted by the slots in order to provide a stronger connection between the tubes and the fins.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. U.S. Patent No. 5,501,270 in view of Scholl U.S. Patent No. 3,687,194.

Young discloses the applicant's invention as claimed with the exception of providing bead between the other elongated edge and the slots.

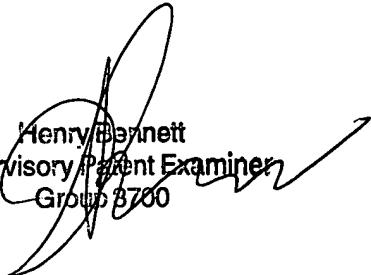
Scholl discloses ribbed pipe unit that does provide bead between the other elongated edge and the slots. Therefore it would be obvious to modify Young's invention by providing bead between the other elongated edge and the slots in order to strengthen the slots.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Nihir Patel whose telephone number is (703) 306-3463. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful the examiner supervisor Henry Bennett can be reached at (703) 308-0101.

NP
June 28, 2002


Henry Bennett
Supervisory Patent Examiner
Group 3700